UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,863	11/13/2001	Wen Hong Liu	50103-421/STL 3057	6031

7590 03/18/2003

MCDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER
RESAN, STEVAN A

ART UNIT	PAPER NUMBER
1773	4

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/986,863	Applicant(s) LIU ET AL.	
	Examiner Stevan A. Resan	Art Unit 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) *7-15 and 23-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,16-22 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-6, 16-22, and 26, drawn to an article, classified in class 428, subclass 694tc.

II. Claims 7-15, 23-25, drawn to a method and apparatus, classified in class 204, subclass 192.16.

2. The inventions are distinct, each from the other because:

3. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product may be made by another process such as disclosed in US 6,086,962.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Aaron Weisstuch on 3-5-2003 a provisional election was made with traverse to prosecute the invention of I, claims 1-6, 16-22, 26. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7-15, 23-25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 16-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Mahoney et al US 6086962.

See Table 3 Run 418-10

It has been held that where claimed and prior art products are identical or substantially identical in structure or in composition, or are produced by identical or substantially identical processes a case of anticipation or a prima facie case of obviousness has been established and the burden of proof is shifted to applicant to show that prior art products do not necessarily or inherently possess the characteristic of a claimed product whether the rejection is based upon "inherency" under 35 USC 102 or on "prima facie obviousness" under 35 USC 103 jointly or alternately. In re Best 562 F2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977); In re Ludke, 58 CCPA 1159,441 F 2d at 212-13, 169 USPQ 563 (1971); In re Brown, 59 CCPA 1036, 459 F. 2d 531, 173 USPQ 685 (1972).

> " When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not". In re Spada. 911 F2d 705, 709, 15 USPQ 2d 1655 (Fed. Cir. 1990).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 6, 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahoney et al as applied to claims 1, 10 above.

Mahoney et al do not disclose an example with the carbon layer in the thickness range of claims 6 or 21 . However Mahoney teach that although the examples were made thick for ease of Raman Spectroscopy, actual thickness for a protective carbon coating on a magnetic recording media would be in a range of 20-100 Angstroms (Col 15 lines 65-67). Therefore it would have been obvious to one of ordinary skill in the art to optimize thickness as taught by the prior art (See Mahoney et al Col 3 lines 21-27).

Mahoney also do not disclose that the stack has one ferromagnetic layer having Co. However, the use of Co alloy magnetic layers in magnetic hard disks is old in the magnetic recording art (See the references of record). It would have been obvious to one of ordinary skill in the art to select a Cobalt alloy in order to achieve high-density recording.

10. Claim 26 is rejected under 35 U.S.C. 102(b) as being anticipated by Usuki et al 5869186. (See Col 14 lines 1-12, Table 2)

The means disclosed by Usuki et al is deemed an equivalent means for protecting a Co magnetic layer.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yang et al 6358636 is cited for teaching the use of a carbon protective layer of less than 100 angstroms to provide corrosion protection to the magnetic layer.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stevan A. Resan whose telephone number is (703) 308-4287. The examiner can normally be reached on Tues-Fri from 7:30AM to 6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) *308-2367. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7718

STEVAN A. RESAN
PRIMARY EXAMINER